

BOEING REALTY CORPORATION FORMER C-6 FACILITY LOS ANGELES, CALIFORNIA

TECHNICAL MEMORANDUM

Quarterly Report No. 7
Second Quarter 2003

Interim Action Full-Scale System Implementation

To: Mr. Brian Mossman

Boeing Realty Corporation

3855 Lakewood Blvd.

Building 1A MC D001-0097 Long Beach, CA 90846

From: Haley & Aldrich, Inc.

Date: 28 July 2003

Re: Quarterly Report No. 7, Second Quarter 2003 Interim Action Full-Scale System

Implementation, Boeing Realty Corporation, Former C-6 Facility - Parcel C, Los

Angeles, California

Haley & Aldrich, Inc. has prepared this technical memorandum to summarize soil vapor extraction (SVE) activities conducted at the former Boeing C-6 Facility (subject property), in Los Angeles, California. One SVE system is currently present on the subject property; an interim action full-scale SVE system in the former Building 1/36 area (Figure 1). A second SVE system, previously located at the former Building 2 area, has been removed and permission to decommission the system was granted by the Regional Water Quality Control Board, Los Angeles Region (LARWQCB) on 2 April 2003.

This technical memorandum summarizes system operations, field measurements, vapor sampling and analysis, mass removal, extraction well optimization, and planned future SVE activities for the Building 1/36 SVE system.

BACKGROUND

Laboratory results for soil samples collected in the former Building 1/36 area at the subject property indicated the presence of VOCs at depth, requiring remediation to prevent possible impact to groundwater. Based on the results of the investigation, shallow occurrences of impacted soil (less than 12 feet below ground surface) were excavated and disposed of at an approved facility. SVE was recommended for the remediation of deep impacted soil. Haley & Aldrich was contracted by Boeing Realty Corporation (BRC) to install and operate first an SVE pilot test system, and later a full-scale SVE system. Appropriate workplans for the SVE systems were submitted and approved by the LARWQCB in June 2001, and December 2001, respectively.

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FORMER BUILDING 1/36

Initial pilot testing commenced in the Building 1/36 area in July 2001 and continued until October 2001 when site grading began. Due to site grading conflicts, the SVE pilot test system was removed and wells were abandoned. At the end of November 2001, one dual-completion well (1-VEW-24A and B) was reinstalled and the pilot test system was re-started on 13 December 2001. An additional forty-one dual and single completion wells (1-VEW-1 through 1-VEW-26) were installed during the month of January 2002 as part of the interim action SVE system implementation. The location of the Building 1/36 SVE system is shown in Figure 1. The well field layout, including well screen depths is shown on Figure 2.

During the second quarter of 2002, the pilot test system was shut down and replaced with a 1,000 standard cubic feet per minute (scfm) system. As a result of the change in equipment, operational up time for the second quarter 2002 was approximately 35% and it removed a total of approximately 4,196 lbs. of VOCs.

The Building 1/36 interim action SVE system consists of forty-three 3-inch diameter, single and dual-completion, SVE wells, a trailer-mounted 1,000-standard cubic feet per minute (scfm) blower system, three 8,000-lb granular activated carbon (GAC) vapor control vessels (primary, secondary, and stand-by), and associated piping. Haley & Aldrich began system operation on 15 May 2002.

On June 7, 2002, the system shut down due to apparent vandalism. The remediation progress prior to system shut down is shown in Figure 3. Exothermic reactions on the GAC beds continued until June 12, when upon discovery, the beds were quenched with water. Due to the GAC bed overheating, system damage occurred that required repair prior to re-start. GAC was removed from all three vessels on 13 June 2002.

In December 2002, twenty-five static vapor samples were collected from fourteen wells and were submitted for laboratory analysis. These samples were collected in an effort to identify high concentrations of MEK prior to restarting the SVE system. MEK was reported above the method detection limit in 16 of the 25 samples collected in concentrations ranging from 0.0023 to 620 parts per million by volume (ppmv).

In March 2003 the installation of a GAC water quench system to control methyl ethyl ketone (MEK) heat generation was completed and the system was restarted on 11 March 2003. The procedures for restarting the SVE system included bringing the well field on-line in a phased approach. Wells that were not likely to yield MEK, (Category 3 wells), were brought on-line first, followed by wells that may yield MEK, (Category 2 wells), brought on-line second, and wells that were likely to yield MEK, (Category 1 wells), brought on line last. Throughout this process, flow rates and GAC vessel VOC and MEK concentrations/mass loading rates were closely monitored.

These start-up procedures were completed on 15 April 2003, and the system was fully operational until it was temporarily deactivated on 22 May 2003, so that modifications could be made to the South Coast Air Quality Management District (SCAQMD) permit to facilitate greater flexibility in GAC changeout procedures. Once modifications were complete and approved by the SCAQMD, the system was reactivated on 27 June 2003. During the three remaining days in the quarter, similar staged activation steps were taken to manage MEK loading on the carbon vessels to control heat generation and system shut-down. Once the staged activation is complete, (anticipated in July 2003) the system will be optimized for maximum removal efficiency.



SECOND QUARTER 2003 BUILDING 1/36 SVE OPERATION SUMMARY

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Days of Operations	54
 Available Days of Operation	91
 Operational Time (%) (1 April to 30 June 2003)	59%
 Mass Removed during Period (lbs)	5,682
Cumulative Mass Removed (lbs) (July '01-March '03)	14,871

OPERATIONS INFORMATION

Operational data and VOC mass removal for the SVE unit are tabulated and shown graphically in Attachment 1. Key events that occurred during the quarter include:

• 15 April 2003	Completed system start-up procedures; 43 wells on-line;
• 1 May 2003	System operation & maintenance turned over to Wayne Perry, Inc;
• 22 May 2003	System shut down for SCAQMD permit modification;
• 27 June 2003	Re-started system under modified permit; 30 wells online.

Total days of SVE system operation for this period was approximately 54, which is a result of planned down-time for maintenance, carbon regeneration, and SCAQMD permit modification. This equates to an up-time of approximately 59 percent, which is shown in Attachment 1, Graph 1. A system maintenance log is also provided in Attachment 1.

The monthly and cumulative mass of VOCs removed by the Building 1/36 system is shown in Attachment 1, Graph 3. Since 2 July 2001 (initial small-scale pilot test start-up) approximately 14,871 lbs. of VOCs have been extracted during approximately 5,597 hours of initial and SVE unit operation. Operation of the SVE system is currently in compliance with the site-specific permit from the SCAQMD.

FIELD MEASUREMENTS

VOC concentrations were measured with a photoionization detector (PID) calibrated to 100 ppmv hexane, as per the SCAQMD permit requirements, at the undiluted inlet, diluted inlet, between the GAC vessels, and at the exhaust stack. Flowrates were measured with a direct flow meter or by hand-held veloci-calc meter. Additional measurements were collected during operation including vacuum readings at each extraction well, temperatures at the GAC vessels, and blower exhaust temperature. The combined wellfield influent VOC measurements are provided in Attachment 1, Table 2 and plotted in Attachment 1, Graph 2. Field measurements of flow, VOC concentration, and vacuum measured at each well head are provided in Attachment 1, Table 3.

VAPOR SAMPLING AND ANALYSIS

For this period, 12 vapor samples were collected in Tedlar bags from the inlet of the process air stream and were delivered to a state-certified laboratory for analysis. These samples were collected for SCAQMD permit compliance as well as system performance evaluation. The vapor samples were collected using a Tedlar bag in a vacuum case. Laboratory analyses were conducted on these vapor grab samples using EPA Method 8260B/TO-14A. The laboratory results of the vapor sampling are summarized in Attachment 1, Table 2.



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Based on the results of the laboratory analysis of vapor grab samples, maximum undiluted inlet VOC concentrations in ppbv for the period are as follows:

•	1,1,1-Trichloroethane	480,000 ppbv
•	Toluene	180,000 ppbv
•	2-Butanone (MEK)	54,000 ppbv
•	1,1-Dichloroethene (1,1-DCE)	26,000 ppbv
•	Trichloroethene (TCE)	17,000 ppbv
•	Methylene Chloride	5,400 ppbv
•	1,1-Dichloroethane	2,300 ppbv
•	Xylene	960 ppbv
•	Cis-1,2-Dichloroethene	460 ppbv
•	1,1,2-Trichloroethane	250 ppbv
•	1,2-Dichloroethane	230 ppbv
•	Ethyl-benzene	140 ppbv
•	Tetrachloroethene (PCE)	74 ppbv
•	Benzene	68 ppbv
•	Chloroform	63 ppbv
•	Trichloroflouromethane	35 ppbv

Figure 3 depicts past VOC concentrations and contours, as well as more recent field screening results and contours. MEK concentration contours, from December 2002 and from April 2003, are depicted on Figure 4 and the data are included in Attachment 1, Table 4.

EXTRACTION WELL OPTIMIZATION

During the second quarter of 2003 all wells were active for approximately one month; however due to the system shut down for permit modification, and reactivation on 27 June, system re-optimization was not conducted. Well optimization will be conducted after all wells have been brought on-line and the active well concentrations have stabilized.

ACTIVITIES FOR NEXT OUARTER

During the next quarter, as active well concentrations stabilize, extraction well settings will be optimized for VOC removal with consideration given to GAC vessels temperature, safe loading rates of MEK to the GAC vessels, and carbon change-out schedule.

A Third Quarter 2003 report summarizing activities during the period July 2003 through September 2003 will be prepared and submitted to BRC in October 2003.



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We appreciate the opportunity to provide environmental consulting services on this project. Please do not hesitate to call if you have any questions or comments.

Sincerely yours,

HALEY & ALDRICH, INC.

Richard M. Farson, PE Senior Engineer



Scott P. Zachary Project Manager

Enclosures:

Figure 1 – SVE System Locations Building 1/36 and Building 2

Figure 2 – Building 1/36 SVE Well Field Layout

Figure 3 – SVE Well Head VOC Concentration Contours

Figure 4 – SVE Well Head MEK Concentration Contours

Attachment 1 – Building 1/36 SVE Operational Data

cc: John Scott, Boeing

Scott Zachary, Haley & Aldrich Richard Farson, Haley & Aldrich

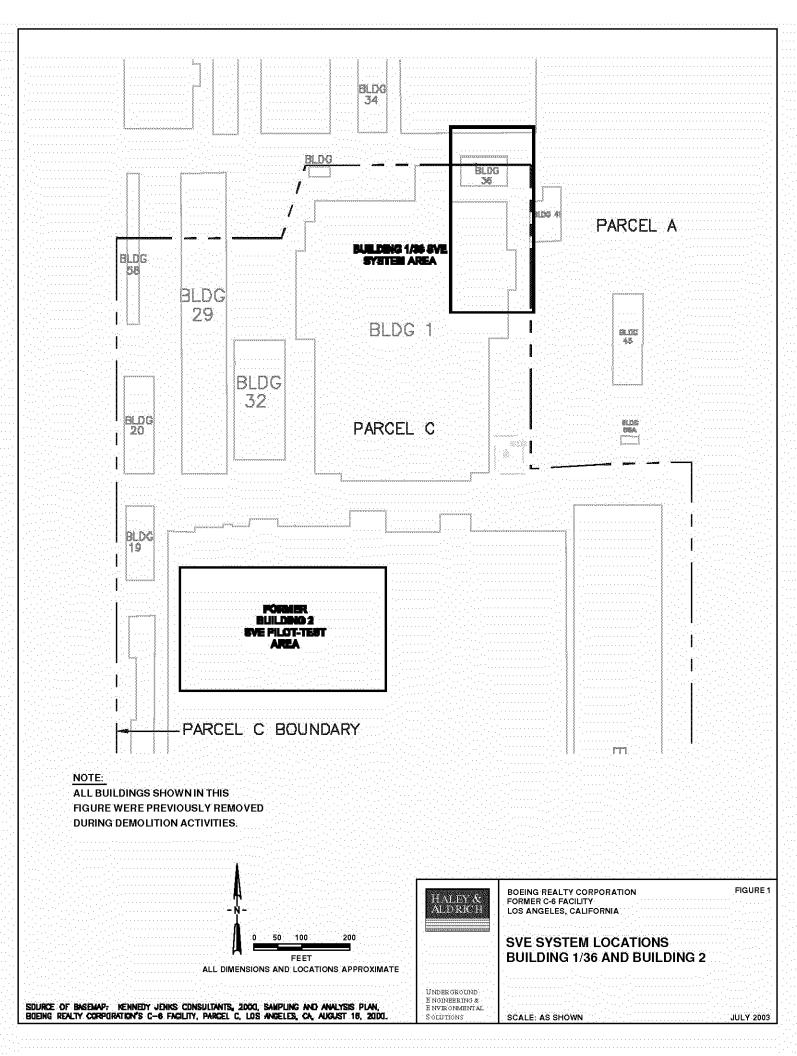
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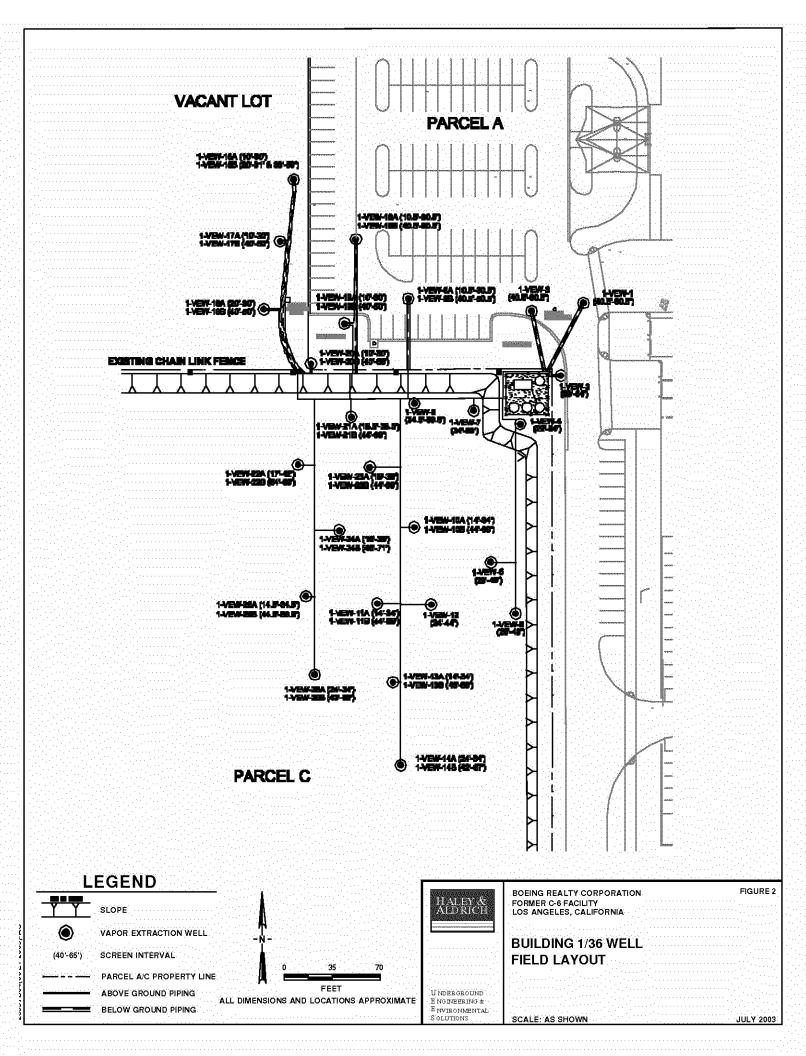
REFERENCES

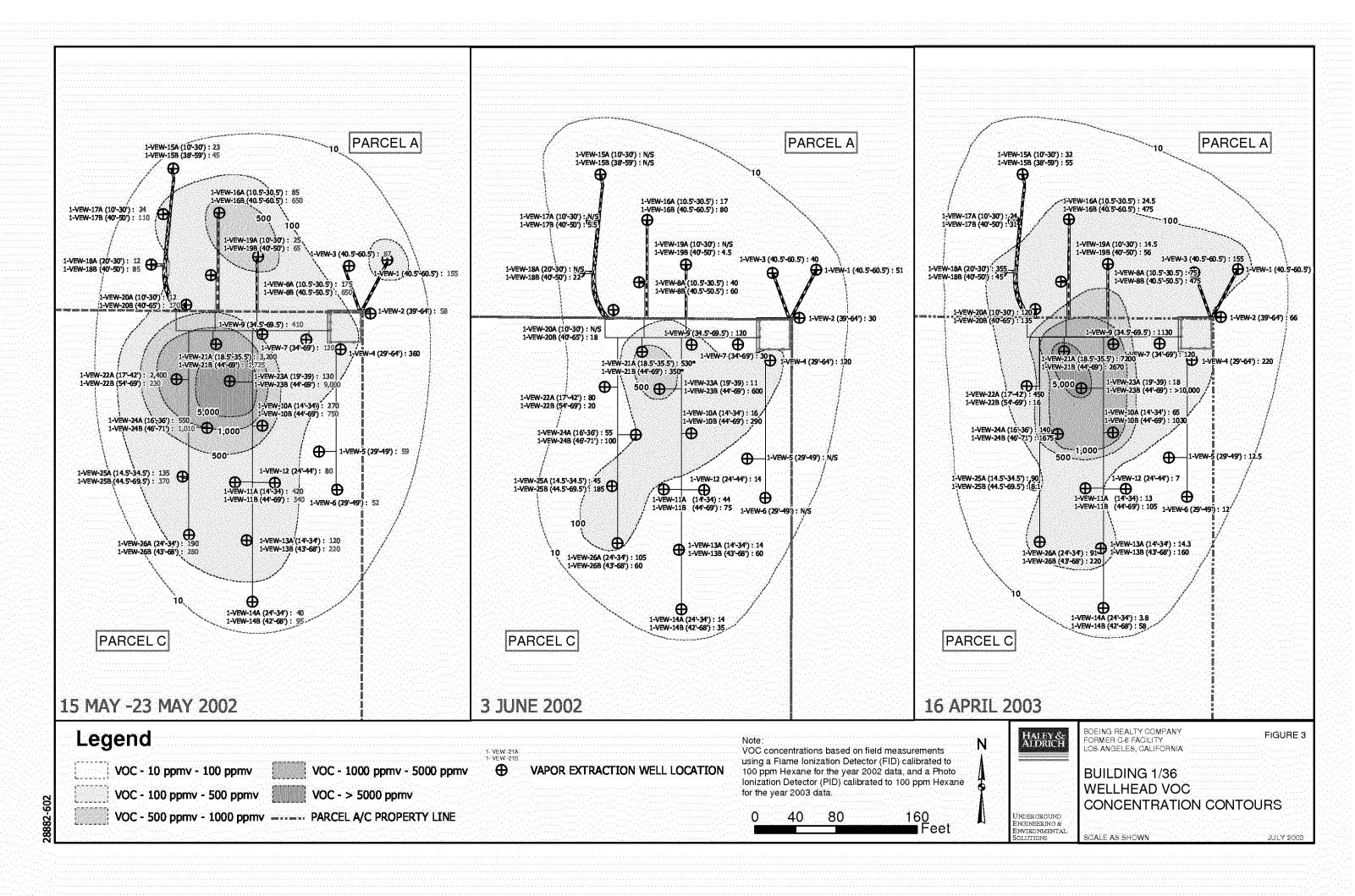
Haley & Aldrich, Inc., 2002. Toxic Risk Assessment for Building 2 SVE Extended Pilot Test System, November 27.

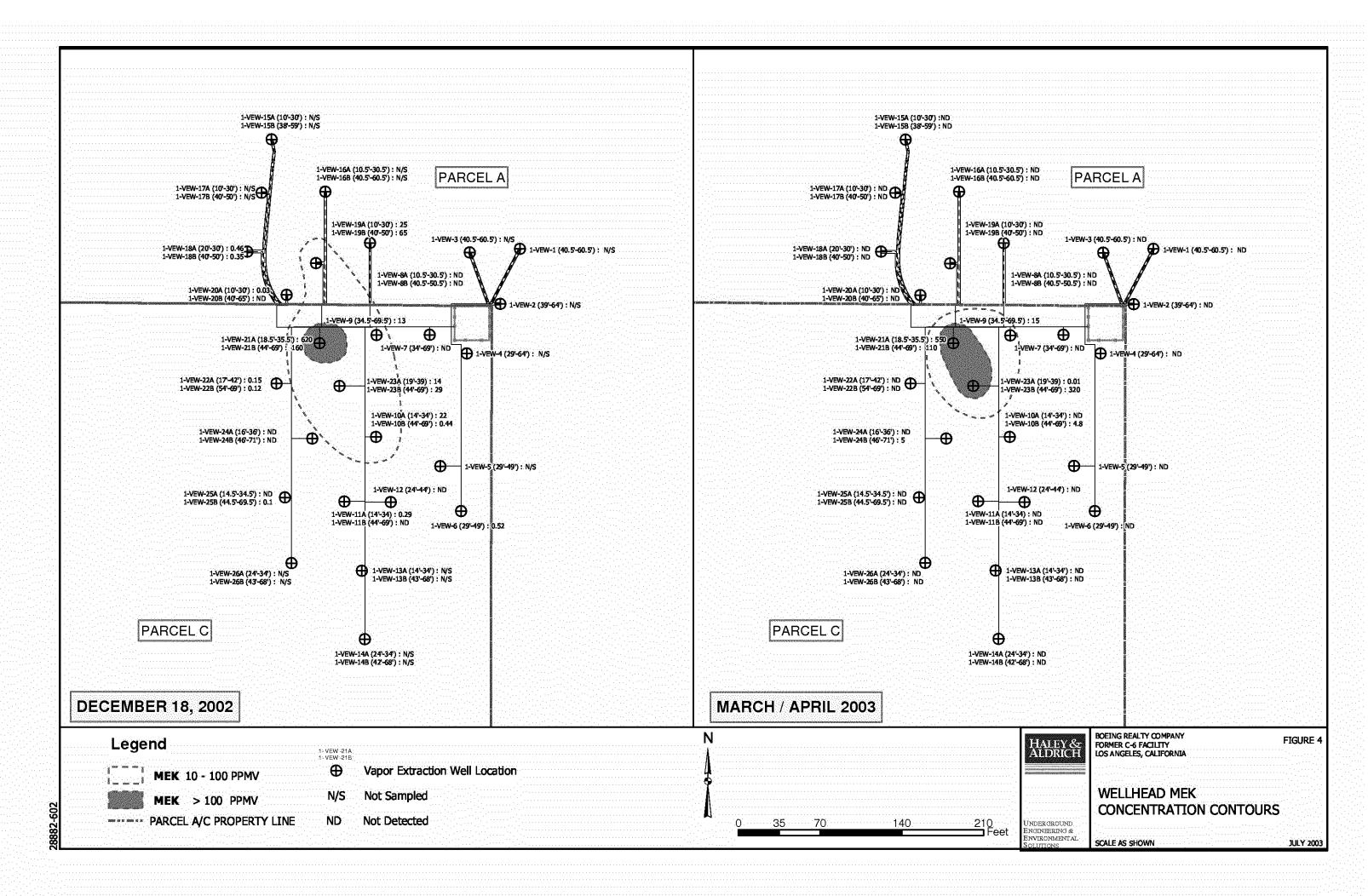
Hargis and Associates, Inc., 2002. Soil Vapor Extraction System Closure Standard Operating Procedure, Revision 1.0 prepared for the Boeing Realty Corporation C-1 Facility, December 18.











ATTACHMENT 1

BUILDING 1/36 SVE OPERATIONAL DATA

TABLE 1 - TREATMENT SYSTEM FIELD DATA

Site Name: BRC Former C-6 Facility

Location: Los Angeles, California

System:

Building 1/36 Interim Action SVE System

	HOUR METER	TIME	INLET	PRIMARY	SECONDARY		DILUTED INLET	VACUUM	DILUTED	MID POINT	EFFLUENT	COMMENTS
			TEMP.	VESSEL MAX TEMP	VESSEL MAX TEMP	INLET FLOW RATE	FLOW RATE (1)		INFLUENT FID (2,3)	CARBON FID (2,3)	CARBON FID (2,3)	
	<u> </u>		(deg F)	(deg F)	(deg F)	(scfm)	(scfm)	(inches of H2O)	(ppmv)	(ppmv)	(ppmv)	
AMERICAN AND AND AND AND AND AND AND AND AND A	Accessors and the second	and a second					ystem removed, 1000 a					
-05/15/02	.5. 31· · · · · · · · ·	16:50	NA.	NA.	NA	985	.995	96 91	375 *.	0.1 * 14.2 *	.0.7 .*	
05/16/02	55	17:45 17:20	NA NA	NA NA	NA NA	915	985	91	320 *	0.0*	0.2 *	
05/18/02		14:40	NA NA	NA NA	NA NA	840	870	40	845	45.0	0.0	
05/19/02	07	11:40	NA.	NA NA	NA	875	905	88	780	18.0	10.0	
05/20/02		10:00	NA:	NA:	NA NA	900	905	88	725	14.0	12.0	
05/21/02	143	14:50	NA	NA .	NA	935	975	72	160	34.0		GAC Changeout
05/22/02	169	17:10	NA NA	NA NA	NA .	925	950	77	330	9.8	7.0	
05/23/02	190	14:35	NA	NA.	NA NA	925	815	62	355	9.8	9.0	
05/24/02	.208	8:41	NA .	NA.	NA	403	400	61	1,250	13.0	12.0	
05/25/02	236	12:40	NA .	NA NA	NA	383	377	60	850	10.5	9.0	
05/26/02	259	11:20	NA	NA.	.NA	392	364	61	1,000	13.0	. 11.8	
05/27/02	283	11:24	NA NA	NA	NA	402	368	60	1,000	25.0	12.0	GAC Changeout
05/29/02	286	17:30	NA:	NA.	NA:	830	795	95	.245 *	:0.0*	0.0 *	ng diagram di manggan
06/03/02	400	10:00	NA	NA	NA .	780	760	109	350	60.0	7.5	Primary vessel switched
						Larbon	ed overheating. System	n shatdown o/ //o/				
						Startvap	procedures from 3/120	33 through 3/31/03				
03/12/03	.NM	16:50	·NM.	. 92.1	91:5	500	:500:	55	670	3.0	-0.0 *	
03/13/03	NM	11:00	NM	NM .	NM	700	700	NM	666		NM	
03/15/03	NM	. NM	NM	NM	NM	645	645	NM	911			
03/16/03	NM	NM		NM NM	NM	720 ·	720.	NM	1,325	11.0	0.0	
03/17/03	NM	. NM	NM	89.8	9034	710	710	60	1,342	8.0		
03/24/03 03/24/03	NM NM	9:00	NM NM	NM NM	NM NM	720	720 720	65	395 395	140.0 140.0	0.0	Primary vessel switched
U3/24/U3	INIM	9:00	INIVI	INIM			easel on 3/31/03. System	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-140.0		GAC Changeout
4.4.7000	584	14:50	99	07.6	91.7	755	755	60	342	1.7	0	GAG GI
4/1/2003 4/3/2003	630.8	14:50	104:	87.6	91.7	775		60	273	1.7		GAC Chargeout
4/4/2003	654.8	NM**	100	82	8/1	770	770	55	293	0.9	0.00	
4/7/2003	725.7	15:02	106	90	g 2	760	760	55	297	15	0:00	
4/8/2003	749.3	14:40	94	.95	100	770	770	50	297		0.00	
4/9/2003	760.4	9:40	102	86	91	780	780	50	358	3	0.00	
/10/2003	780.7	8:55**	96	86	91	860	860	57	404	3.2	0.00	
/11/2003	821.3	16:30	98	82	87	860	860	50	1950	28.9	0.00	Primary vessel switched
/15/2003	909	7:51	92	78	86	875	835	63	1476		0.00	Primary vessel switched, GAC Ch
/16/2003: `-	941.5	16:20**	106	88	89	860	800	59	1350			GAC Charigeout
/18/2003	988.7	15:30**	NM	NM	NM	850	850	NM	1256	8.3	0.00	والمناوي والمناوي والمعامع فالمنا
/21/2003	.1053.7	8:30	88	. 76	80	855	845	60	1230	60	0.00	Primary vessel switched
		10.00	104	79	82	860	850	60	1100	6	0:00	GAC Charigeout
/24/2003	1127.3				87	870	850	60	1190	51.	0.00	Primary vessel switched
/24/2003 /29/2003	1245.8	8:30**	102	. 87								GAC Changeout
/24/2003 /29/2003 //5/2003	1245.8 1398.2	8:30** 8:00	75	76	83	800	780	50	1423	105	11.00	
/24/2003 /29/2003 i/5/2003 i/8/2003	1245.8 1398.2 1464	8:30** 8:00 15:30	75 ·	76 89	83 89	800 NM	NM	57	1422	8.3	5.40	Primary vessel switched
/24/2003 /29/2003 5/5/2003 5/8/2003 /12/2003	1245.8 1398.2 1464 1553	8:30** 8:00 15:30 14:00	75 81 84	76 89 87	83 89 88	800 NM 910	NM 860	57 49	1422 912	8.3 35	5.40 10.00	Primary vessel switched Primary vessel switched, GAC Ch
/24/2003 /29/2003 5/5/2003 5/8/2003 /12/2003	1245.8 1398.2 1464	8:30** 8:00 15:30	75 ·	76 89	83 89 88 84	800 NM 910 945	NM 860 992	57 49 47	1422 912 870	8.3 35 56	5.40	Primary vessel switched Primary vessel switched, GAC Ch
1/24/2003 1/29/2003 5/5/2003 5/8/2003 1/12/2003 1/19/2003	1245.8 1398.2 1464 1553	8:30** 8:00 15:30 14:00	75 81 84	76 89 87	83 89 88 84	800 NM 910 945	NM 860	57 49 47	1422 912 870	8.3 35 56	5.40 10.00	

Notes:

** A seculated hour meter readings are extrapolated from nearest date and time readings with hour reading measurements

(1) Direct flow readings taken by hand-held TSI Veloci-cale Plus, unless otherwise denoted

(3) As of 3/12/03, Field measuments were conducted using a 10.6 eV FID. No correction has been applied:

	QA/QC:	100		٠,٠	e , "	٠٠,	. :
- :	Date:						

TABLE 2 - INFLUENT VAPOR CONCENTRATIONS, C-6 SVE SYSTEM, BUILDING 1\36

Site Name: BRC Former C-6 Facility

Location: Los Angeles, California

System: Building 1/36 Interim Action SVE System

											COM	POUND								
SAMPLE DATE	SAMPLE ID	SAMPLE TYPE	PCE (ppbv)	TCE (ppbv)	1,1,1 TCA (ppbv)	1,1,2 TCA (ppbv)	1,1 DCE (ppbv)	cis- 1,2 DCE (ppbv)	1,1 DCA (ppbv)	1,2 DCA (ppbv)	2- Butanone (ppbv)	Chloroform (ppbv)	Acetone (ppbv)		Trichloroflu oro-methane (ppbv)	Toluene (ppbv)	Benzene (ppbv)	Ethyl benzene (ppbv)	Xylene (ppbv)	TNMOC (ppbv)
03/12/03	GAC001U_AV031203_0001	Influent	140	25,000	6,900	ND	57,000	280	530	ND	ND	ND	ND	ND	ND	810	ND	ND	ND	110,000
03/13/03	GAC001U_AV031303_0001	Influent	110	24,000	37,000	ND	63,000	290	530	ND	ND	ND	ND	ND	ND	25,000	180	ND	ND	190,000
03/14/03	GAC001U_AV031403_0001	Influent	ND	29,000	66,000	ND	64,000	470	970	ND	ND	ND	ND	ND	ND	70,000	ND	ND	ND	350,000
03/17/03	GAC001U_AV031703_0001	Influent	ND	21,000	63,000	ND	54,000	360	650	ND	ND	ND	ND	ND	ND	49,000	ND	ND	ND	240,000
03/26/03	GAC0001D_AV032603_0001	Influent	ND	11,000	42	ND	18,000	260	390	ND	ND	ND	ND	300	ND	11,000	ND	ND	ND	120,000
04/01/03	GAC001U_AV010103_00001	Influent	ND	12,000	64,000	ND	20,000	260	420	ND	ND	ND	ND	300	ND	16,000	ND	ND	ND	150,000
04/03/03	GAC001U_AV040303_001	Influent	ND	8,100	41,000	ND	14,000	260	480	ND	ND	ND	ND	440	ND	7,100	ND	ND	ND	90,000
04/04/03	GAC001U_AV040403_001	Influent	36	9,600	43,000	ND	16,000	290	500	73	290	63	ND	330	35	10,000	68	ND	ND	99,000
04/07/03	GAC001U_AV040703_001	Influent	ND	11,000	38,000	ND	16,000	370	690	ND	ND	ND	ND	530	ND	11,000	ND	ND	ND	110,000
04/08/03	GAC001U_AV040803_0001	Influent	ND	9,000	47,000	ND	14,000	310	630	ND	1,300	ND	ND	520	ND	14,000	ND	ND	ND	130,000
04/09/03	GAC001U_AV040903_001	Influent	ND	9,900	90,000	ND	17,000	340	620	ND	2,400	ND	ND	610	ND	22,000	ND	ND	ND	180,000
04/10/03	GAC001U_AV041003_001	Influent	ND	17,000	480,000	ND	26,000	ND	2,300	ND	24,000	ND	ND	5,400	ND	180,000	ND	ND	ND	910,000
04/15/03	GAC001U_AC041503_001	Influent	ND	10,000	130,000	ND	10,000	ND	1,100	ND	42,000	ND	ND	3,600	ND	77,000	ND	ND	ND	390,000
04/16/03	GAC001U_AV041603_001	Influent	ND	8,400	150,000	ND	10,000	ND	790	ND	33,000	ND	ND	2,600	ND	65,000	ND	ND	ND	330,000
04/24/03	GAC001U_AV042403_0001	Influent	ND	7,900	89,000	250	7,500	460	780	230	54,000	ND	930	2,700	ND	56,000	ND	140	960	320,000
04/29/03	GAC0001U_AV042903_0001	Influent	ND	6,400	120,000	ND	6,300	ND	540	ND	45,000	ND	ND	2,000	ND	52,000	ND	ND	ND	260,000
06/30/03	GAC0001U_AV063003_0001	Influent	74	3,800	21,000	ND	4,400	120	170	ND	1,200	ND	280	200	ND	5,500	ND	ND	ND	77,000

Notes:

ppbv = parts per million by volume

ND = not detected

NA = not analyzed

TNMOC = Total Non Methane Organic Carbons

QA/QC:
Date:

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-1	3/6/2002	13:40	NA	0.0	NA	Well Closed
1-VEW-1	3/29/2002	8:15	NA NA	0.5	NA NA	well Closed
	5/23/2002	11:21	4.41	9	115	Well Opened
	5/23/2002	12:38	18.9	40	125	" opened
	5/23/2002	14:19	37.6	96	155	и
	6/3/2002	10:00	39	90	51	u .
	6/702 through 3/11/03	10.00	SVE shut down for retr		J.,	
	3/12/2003		Begin start-up procedu			
	3/24/2003		26	65	210	Well Opened**
	4/1/2003		21	60	210	•
	4/16/2003		19	55	155	
	4/29/2003	8:30	22	56	46	
	5/5/2003	8:00	52	64	47	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	32	55	128	
	5/19/2003	15:00	45.8	74	91	
	6/27/2003	16:00	40	92	242	
	6/30/2003	10:00	40	40	101	
1-VEW-2	3/6/2002	13:40	NA	0.5	NA	Well Closed
	3/29/2002	8:15	NA	1	NA	п
	5/23/2002	11:24	5.45	9	49	Well Opened
	5/23/2002	12:35	21.2	35.5	51	u u
	5/23/2002	14:23	47.2	96	58	II .
	6/3/2002	10:00	45	90	30	· ·
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu			
	3/24/2003		32	83	106	Well Opened**
	4/1/2003		23	80	75	
	4/16/203		20	74	66	
	4/29/2003	8:30	26	75	23	
	5/5/2003	8:00	39.6	60	65	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	32	55	4	
	5/19/2003	15:00	61.5	53	35	
	6/27/2003	16:00	38	98	98	
	6/30/2003	10:00	40	28	32	
1-VEW-3	3/6/2002	13:40	NA	0.1	NA	Well Closed
	3/29/2002	8:15	NA	0.6	NA	"
	5/23/2002	11:17	3.37	8.5	32	Well Opened
	5/23/2002	12:43	15.6	42	87	"
	5/23/2002	14:13	30.2	96 60	82	"
	6/3/2002 6/702 through 3/11/03	10:00	24 SVE shut down for retr	69	40	
	6/702 through 3/11/03 3/12/2003		SVE shut down for retr			
	3/24/2003		Begin start-up procedu 32	res 70	190	Well Opened**
	3/24/2003 4/1/2003		32 25	65	190 210	wen Openea
	4/1/2003		20	65	155	
	4/29/2003	8:30	33	61	133 79	
	5/5/2003	8:00	31.5	65	14	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	63	60	139	
	5/12/2003	15:00	64.5	58	109	
	3/12/12/03					
	6/27/2003	16:00	30	41	197	

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-4	3/6/2002	13:40	NA	1.4	NA	Well Closed
1-1211-4	3/29/2002	8:15	NA	1.4	NA	" Closed
	5/23/2002	10:45	2.61	13	8	Well Opened
	5/23/2002	NA	7.05	34.5	360	"
	5/23/2002	14:08	18.1	96	230	и
	6/3/2002	10:00	9	51	120	и
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	3/24/2003		11	20	1,600	Well Opened**
	4/1/2003		9	20	1,120	
	4/16/2003		11	15	220	
	4/29/2003	8:30	14	15	130	
	5/5/2003	8:00	74	50	425	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	11	50	294	
	5/19/2003	15:00	4.71	41	120	Well at 50%
	6/27/2003	16:00	10	74	620	
	6/30/2003	10:00	10	50	534	
1-VEW-5	3/6/2002	13:40	NA	1.4	NA	Well Closed
	3/29/2002	8:15	NA	1.5	NA	и
	5/21/2002	11:38	6.9	12	59	Well Opened
	5/21/2002	13:02	15.6	19	16	"
	5/21/2002	12:45	32.1	34	29	п
	6/3/2002	10:00	NA	10	NA	Well Closed
	6/702 through 3/11/03		SVE shut down for retr			
	3/12/2003		Begin start-up procedu			
	3/24/2003		52	30	12	Well Opened**
	4/1/2003		30	40	5.8	
	4/16/2003		29	40	12.5	
	4/29/2003	8:30	31	40	12	
	5/5/2003	8:00	40.5	40	47	
	5/8/2003	15:30	NM	NM	NM	W 11 - 70 00
	5/12/2003	8:00	41	40	3	Well at 50%
	5/19/2003	15:00	40.4	38	233	"
	6/27/2003	16:00	30	25 25	10	
	6/30/2003	10:00	30	25	4	
1-VEW-6	3/6/2002	13:40	NA	2.2	NA	Well Closed
	3/29/2002	8:15	NA	1.6	NA	и
	5/21/2002	11:25	6.3	8	52	Well Opened
	5/21/2002	13:05	16.5	15	16	п
	5/21/2002	12:50	33.3	30	30	и
	6/3/2002	10:00	NA	7	NA	Well Closed
	6/702 through 3/11/03		SVE shut down for retr			
	3/12/2003		Begin start-up procedu			
	3/24/2003		30	30	6	Well Opened**
	4/29/2003	8:30	22	30	5	
	5/5/2003	8:00	32	30	61	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	34	29	2	Well at 50%
	5/19/2003	15:00	19	30	216	"
	6/27/2003	16:00	30	21	15	

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WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-7	3/6/2002	13:40	NA	1.9	NA	Well Closed
	3/29/2002	8:15	NA	0.1	NA	"
	5/23/2002	10:38	9.85	13	44	Well Opened
	5/23/2002	11:37	42.1	41	85	u *
	5/23/2002	13:58	92	95	120	и
	6/3/2002	10:00	88	88	30	и
	6/702 through 3/11/03 3/12/2003		SVE shut down for retro Begin start-up procedur			
	3/24/2003		60	60	340	Well Opened**
	4/29/2003	8:30	39	50	90	
	5/5/2003	8:00	45	50	315	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	47	45	117	
	5/19/2003	15:00	40.8	45	143	
	6/27/2003	16:00	30	9	2,728	
	6/30/2003	10:00	30	20	689	
-VEW-8A	3/6/2002	13:40	NA	0.5	NA	Well Closed
	3/29/2002	8:15	NA	0.6	NA	и
	5/22/2002	11:25	10.75	11.5	175	Well Opened
	5/22/2002	14:23	63	41.5	150	u
	5/22/2002	15:32	112	82	142	и
	6/3/2002	10:00	33	22	40	и
	6/702 through 3/11/03		SVE shut down for retro			
	3/12/2003		Begin start-up procedu			
	3/24/2003		39	30	120	Well Opened**
	4/29/2003	8:30	27	25	75	
	5/5/2003	8:00	57.5	40	111	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	55	60	65	
	5/19/2003	15:00	42	45	52	
	6/27/2003	16:00	20	10	45	
	6/30/2003	10:00	20	13	31	
-VEW-8B	3/6/2002	13:40	NA	0.3	NA	Well Closed
. 2 0.0	3/29/2002	8:15	NA NA	0.6	NA NA	" Closed
	5/17/2002	NA	3.7	14	565	Well Opened
	5/17/2002	NA	6.05	43	650	" Spelled
	5/17/2002	NA	11.3	72	510	ш
	6/3/2002	10:00	10	90	60	ш
	6/702 through 3/11/03	- 21.00	SVE shut down for retro			
	3/12/2003		Begin start-up procedu			
	3/24/2003		19	30	1,207	Well Opened**
	4/29/2003	8:30	19	18	370	
	5/5/2003	8:00	28.9	35	656	
	5/8/2003	15:30	28.9 NM	NM	NM	
	5/12/2003	8:00	21	60	389	
	5/19/2003	15:00	62	40	301	
	6/27/2003	16:00	20	42	355	
	6/30/2003	10:00	20	19	333 154	
	0/30/2003	10:00	20	17	134	

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WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-9	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA	NA	NA	п
	5/23/2002	10:30	4.33	13	63	и
	5/23/2002	13:05	27.7	45	410	Well Opened
	5/23/2002	13:56	46.4	95	305	u T
	6/3/2002	10:00	49	88	120	п
	6/702 through 3/11/03	10.00	SVE shut down for retro		120	
	3/12/2003		Begin start-up procedur			
	4/29/2003	8:30	21	47	618	Well Opened***
	5/5/2003	8:00	40	45	4,100	•
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	26	42	2,740	
	5/19/2003	15:00	20.6	40	2,680	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	20	35	1,120	
-VEW-10A	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA 2.7	NA 26	NA 270	
	5/16/2002	NA	2.7	26	270	Well Opened
	5/16/2002	NA NA	11	54	195	"
	5/16/2002	NA 10.00	19.8 19	18	35	" "
	6/3/2002 6/702 through 3/11/03	10:00	SVE shut down for retro	65 fit	16	**
	6/702 through 3/11/03 3/12/2003		Begin start-up procedure			
	4/16/2003		0:00	es 47	65	
	4/29/2003	8:30	29	45	23	Well Opened***
	5/5/2003	8:00	45	46	39	went opened
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	10	43	47	
	5/19/2003	15:00	21.3	43	92	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	20	68	28	
	A171	40.15			27.	
1-VEW-10B	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA 2.74	NA 20	NA 200	W " O
	5/20/2002	13:05	2.74	20	290	Well Opened
	5/20/2002	15:45	12.7	25	750 600	
	5/20/2002 6/3/2002	16:53 10:00	21 29	78 60	600 290	
	6/3/2002 6/702 through 3/11/03	10:00	SVE shut down for retro		290	
	3/12/2003		Begin start-up procedure			
	4/16/2003		0:00	es 55	1,030	
	4/29/2003	8:30	19	56	495	Well Opened***
	5/5/2003	8:00	48	55	3,130	en opened
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	13	52	1,994	
	5/19/2003	15:00	30	51	1,958	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	10	34	1,164	
I-VEW-11A	3/6/2002	13:40	NA	4.7	NA	Well Closed
	3/29/2002	8:15	NA	2.8	NA	****
	5/15/2002	18:08	5.3	40	400	Well Opened
	5/15/2002	19:22	5.6	>100	400	"
	5/15/2002	18:57	20.1	52	420	
	6/3/2002 6/702 through 3/11/03	10:00	22 SVE shut down for retro	90	44	Well Closed
	3/12/2003		Begin start-up procedure 34		48	Well Oronod**
	3/24/2003 4/1/2003		34 11	35 36	48 77	Well Opened**
	4/16/2003		18	35	13	
	4/29/2003	8:30	22.5	36	11	
	5/5/2003	8:00	40	62	23	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	22	32	14	Well at 50%
					13	Henat Solo
	5/19/2003	15:00	49			
	5/19/2003 6/27/2003	15:00 16:00	49 20	32 81	43	

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WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-11B	3/6/2002	13:40	NA	5.0	NA	Well Closed
1- V E W-11D	3/29/2002	8:15	NA	3.0	NA NA	" Closed
	5/18/2002	9:40	2.16	23.5	270	Well Opened
	5/18/2002	11:50	7.7	38	340	ii -
	5/18/2002	13:35	15.5	60	280	"
	6/3/2002	10:00	29	50	75	u u
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu			
	3/24/2003		51	50	970	Well Opened**
	4/1/2003		18	49	569	
	4/16/2003		17	45	105	
	4/29/2003	8:30	21	45	92	
	5/5/2003	8:00	22.1	55 NR 6	203	
	5/8/2003	15:30	NM	NM	NM 97	
	5/12/2003 5/19/2003	8:00 15:00	13 24.7	45 42	84	
	6/27/2003	16:00	20	58	209	
	6/30/2003	10:00	20	60	315	
	0.50/2005	10.00	20		212	
1-VEW-12	3/6/2002	13:40	NA	3.5	NA	Well Closed
	3/29/2002	8:15	NA	2.2	NA	"
	5/21/2002	11:45	6.2	18.5	80	Well Opened
	5/21/2002	13:44	17.3	43	65	"
	5/21/2002	12:40	32.3	90	63	
	6/3/2002	10:00	17	55	14	Well Closed
	6/702 through 3/11/03		SVE shut down for retr			
	3/12/2003		Begin start-up procedu	ires 45	48	W-11 O 1**
	3/24/2003 4/1/2003		54 19	45 45	48 21	Well Opened**
	4/16/2003		16	45	7	
	4/29/2003	8:30	17	45	3	
	5/5/2003	8:00	55	45	6	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	19	45	4	
	5/19/2003	15:00	23	41	5	
	6/27/2003	16:00	10	29	14	
	6/30/2003	10:00	10	20	6	
	3/6/2002	13:40	NA	3.0	NA	Well Closed
- v E vv -13A	3/29/2002	8:15	NA NA	2.0	NA NA	well Closed
	5/15/2002	18:23	5.4	2.0	84	Well Opened
	5/15/2002	19:05	11.2	56	95	" Opened
	5/15/2002	19:29	28.1	>100	120	u
	6/3/2002	10:00	59	87	14	"
	6/702 through 3/11/03		SVE shut down for retr			
	3/12/2003		Begin start-up procedu			
	3/24/2003		48	55	18	Well Opened**
	4/1/2003		15.5	48	19.1	•
	4/16/2003		30	50	14.3	
	4/29/2003	8:30	24	50	6	
	5/5/2003	8:00	31	50	18	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	26	48	12	
	5/19/2003	15:00	33	45	14	
	6/27/2003	16:00	20	80	30	
	6/30/2003	10:00	30	82	10	

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WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-13B	3/6/2002	13:40	NA	2.9	NA	Well Closed
1- V E W-13D	3/29/2002	8:15	NA	2.2	NA NA	" Closed
	5/18/2002	NA	1.84	18.5	63	Well Opened
	5/18/2002	NA	8.3	33	220	"
	5/18/2002	NA	18.6	60.5	200	u u
	6/3/2002	10:00	26	45	60	u
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	3/24/2003		52	55	130	Well Opened**
	4/1/2003		15.5	48	220	-
	4/16/2003		30	50	160	
	4/29/2003	8:30	21	48	59	
	5/5/2003	8:00	20	51	152	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	21	45	99	
	5/19/2003	15:00	52	45	102	
	6/27/2003	16:00	28	81	132	
	6/30/2003	10:00	30	80	115	
1-VEW-14A	3/6/2002	13:40	NA	0.4	NA	Well Closed
	3/29/2002	8:15	NA	0.4	NA	ii
	5/15/2002	18:48	5.3	24	27	Well Opened
	5/15/2002	19:11	15	30	27	n -
	5/15/2002	19:37	27	>100	40	Ħ
	6/3/2002	10:00	22	64	14	Well Closed
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	3/24/2003		43	50	11	Well Opened**
	4/1/2003		16	50	2.1	
	4/16/2003		26	43	3.8	
	4/29/2003	8:30	29	43	3	
	5/5/2003	8:00	35	60	22	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	43	40	4	Well at 50%
	5/19/2003	15:00	67	41	6	ii
	6/27/2003	16:00	19	75	13	
	6/30/2003	10:00	30	78	8	
1-VEW-14B	3/6/2002	13:40	NA	1.8	NA	Well Closed
	3/29/2002	8:15	NA	1.8	NA	п
	5/18/2002	NA	7.1	15.5	65	Well Opened
	5/18/2002	NA	34.2	33.5	95	u
	5/18/2002	NA	65	61	85	и
	6/3/2002	10:00	38	40	35	u
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	3/24/2003		41	35	140	Well Opened**
	4/1/2003		40	35	105	
	4/16/2003		32	35	58	
	4/29/2003	8:30	38	35	61	
	5/5/2003	8:00	36	65	22	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	39	32	68	Well at 85%
	5/19/2003	15:00	27	34	83	Well at 50%
	6/27/2003	16:00	30	28	97	
	6/30/2003	10:00	30	28	68	

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WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-15A	3/6/2002	13:40	NA	0.0	NA	Well Closed
1- 12 11 - 15/1	3/29/2002	8:15	NA	0.0	NA	"
	5/22/2002	12:14	16.4	6.5	13.5	Well Opened
	5/22/2002	13:51	74	35	23	n *
	5/22/2002	16:00	138	80	19.5	и
	6/3/2002	10:00	84	61	NA	Well Closed
	6/702 through 3/11/03		SVE shut down for retro	ofit		
	3/12/2003		Begin start-up procedu	res		
	3/24/2003		50	60	9	Well Opened**
	4/1/2003		61	60	2.3	
	4/16/2003		65	50	32	
	4/29/2003	8:30	70	50	30	
	5/5/2003	8:00	84	52	9	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	68	48	6	
	5/19/2003	15:00	113	46	8	
	6/27/2003	16:00	40	77	13	
	6/30/2003	10:00	40	27	3	
1-VEW-15B	3/6/2002	13:40	NA	0.0	NA	Well Closed
	3/29/2002	8:15	NA	0.0	NA	п
	5/17/2002	NA	12	4	12	Well Opened
	5/17/2002	NA	60.5	27	45	п
	5/17/2002	NA	117	72	40	II .
	6/3/2002	10:00	74	34	NA	Well Closed
	6/702 through 3/11/03		SVE shut down for retro			
	3/12/2003		Begin start-up procedu			
	3/24/2003		45	55	104	Well Opened**
	4/1/2003		30	55	52	
	4/16/2003		32	50	55	
	4/29/2003	8:30	29	45	13	
	5/5/2003	8:00	44	49	51	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	35	45	37	
	5/19/2003	15:00	53	41	36	
	6/27/2003	16:00	40	76	73	
	6/30/2003	10:00	40	38	14	
1-VEW-16A	3/6/2002	13:40	NA	0.0	NA	Well Closed
	3/29/2002	8:15	NA	0.2	NA	u u
	5/22/2002	11:43	3.72	11	85	Well Opened
	5/22/2002	14:17	23.9	72	68	п
	5/22/2002	15:41	25.1	82	75	н
	6/3/2002	10:00	18	70	17	н
	6/702 through 3/11/03		SVE shut down for retro			
	3/12/2003		Begin start-up procedu			
	3/24/2003		32	37	88	Well Opened**
	4/1/2003		16.4	40	16	
	4/16/2003	0.70	18	30	24.5	
	4/29/2003	8:30	13	27	6	
	5/5/2003	8:00	22	35	22	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	20	30	7	W 11
	5/19/2003	15:00	27	35	14	Well at 90%
	6/27/2003	16:00	20	7	12	
	6/30/2003	10:00	20	15	17	

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1-VEW-16B	3/6/2002	13:40	NA	0.0	NA	Well Closed
	3/29/2002	8:15	NA	0.5	NA	"
	5/17/2002	NA	3.6	11	510	Well Opened
	5/17/2002	NA	16.1	25	650	n.
	5/17/2002	NA	39.3	74	610	н
	6/3/2002	10:00	22	65	80	н
	6/702 through 3/11/03		SVE shut down for retr			
	3/12/2003		Begin start-up procedu			
	3/24/2003		37	50	1,400	Well Opened**
	4/1/2003		21	50	630	•
	4/16/2003		27	40	475	
	4/29/2003	8:30	23	35	240	
	5/5/2003	8:00	20	40	643	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	19	38	433	
	5/19/2003	15:00	26	42	352	
	6/27/2003	16:00	20	52	465	
	6/30/2003	10:00	20	37	341	
1-VEW-17A	3/6/2002	13:40	NA	0.0	NA	Well Closed
	3/29/2002	8:15	NA	0.1	NA	п
	5/22/2002	12:00	6.55	7	24	Well Opened
	5/22/2002	13:57	29.2	35	9.5	n T
	5/22/2002	15:54	58.5	80	5.6	п
	6/3/2002	10:00	NA	NA	NA	Well Closed
	6/702 through 3/11/03 3/12/2003		SVE shut down for retr Begin start-up procedu			
	3/24/2003		37	50	5	Well Opened**
	4/1/2003		38	50	1.4	
	4/16/2003		74	45	24	
	4/29/2003	8:30	95	44	13	
	5/5/2003	8:00	83	45	3	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	89	42	3	
	5/19/2003	15:00	94	39	3	
	6/27/2003	16:00	40	8	9	
	6/30/2003	10:00	40	6	2	
1-VEW-17B	3/6/2002	13:40	NA	0.0	NA	Well Closed
	3/29/2002	8:15	NA	0.2	NA	и
	5/17/2002	NA	4.5	6	110	Well Opened
	5/17/2002	NA	24.2	36	110	п
	5/17/2002	NA	41.5	72	110	н
	6/3/2002	10:00	40	58	6	п
	6/702 through 3/11/03 3/12/2003		SVE shut down for retr Begin start-up procedu	ires		
	3/24/2003		30	55	21	Well Opened**
	4/1/2003		25	55	21.5	
	4/16/2003		24	45	31	
	4/29/2003	8:30	32	43	8	
	5/5/2003	8:00	34	50	21	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	26	45	12	
	5/19/2003	15:00	41	46	9	
	6/27/2003	16:00	40	70	27	
	6/30/2003	10:00	40	51	9	

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-18A	3/6/2002	13:40	NA	0.0	NA	Well Closed
1- VE W-10A	3/29/2002	8:15	NA NA	0.3	NA NA	" Closed
	5/22/2002	12:18	2.8	33.5	12.2	Well Opened
	5/22/2002	13:45	9.25	72	10.5	"
	5/22/2002	16:08	19.4	80	9.5	N .
	6/3/2002	10:00	NA	NA	NA	Well Closed
	6/702 through 3/11/03 3/12/2003		SVE shut down for retro Begin start-up procedur	fit		
	3/24/2003		40	50	8	Well Opened**
	4/1/2003		33	50	1.2	wen opened
	4/16/2003		30	40	355	
	4/29/2003	8:30	31	40	7	
	5/5/2003	8:00	45	45	4	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	30	41	3	
	5/19/2003	15:00	30	41	4	
	6/27/2003	16:00	20	77	6	
	6/30/2003	10:00	30	14	2	
1-VEW-18B	3/6/2002	13:40	NA	0.2	NA	Well Closed
	3/29/2002	8:15	NA	0.4	NA	
	5/17/2002	NA	3	2	7.9	Well Opened
	5/17/2002	NA	12.75	16	73	u
	5/17/2002	NA	32.5	72	85	и
	6/3/2002	10:00	32	86	22	п
	6/702 through 3/11/03 3/12/2003		SVE shut down for retro Begin start-up procedur	fit		
	3/24/2003		48	52	79	Well Opened**
	4/1/2003		26.1	50	8.7	1
	4/16/2003		34	45	45	
	4/29/2003	8:30	33	43	11	
	5/5/2003	8:00	73	50	10	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	30	42	7	
	5/19/2003	15:00	45	40	6	
	6/27/2003	16:00	19	79	10	
	6/30/2003	10:00	30	38	4	
1-VEW-19A	3/6/2002	13:40	NA	0.0	NA	Well Closed
	3/29/2002	8:15	NA	0.0	NA	и
	5/22/2002	11:49	6.55	9.5	25.1	Well Opened
	5/22/2002	14:12	35.2	40	13	u
	5/22/2002	15:48	64.5	82	11.7	ш
	6/3/2002	10:00	NA	15	NA	Well Closed
	6/702 through 3/11/03		SVE shut down for retro			
	3/12/2003		Begin start-up procedur			
	3/24/2003		37	55	12	Well Opened**
	4/1/2003		42	55	2.1	
	4/16/2003		29	50	14.5	
	4/29/2003	8:30	32	45	4	
	5/5/2003	8:00	41	45	6	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	44	40	3	
	5/19/2003	15:00	52	45	4	
	6/27/2003	16:00	30	32	6	
	6/30/2003	10:00	30	31	8	

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-19B	3/6/2002	13:40	NA	0.6	NA	Well Closed
	3/29/2002	8:15	NA	0.6	NA	ii
	5/17/2002	NA	3.5	14	59	Well Opened
	5/17/2002	NA	15.8	34	65	u T
	5/17/2002	NA	43.1	74	60	u u
	6/3/2002	10:00	16	87	5	и
	6/702 through 3/11/03 3/12/2003		SVE shut down for retr Begin start-up procedu	ıres		
	3/24/2003		35	40	55	Well Opened**
	4/1/2003		17	45	37	
	4/16/2003		30	40	56	
	4/29/2003	8:30	16	32	8	
	5/5/2003	8:00	42	40	15	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	32	35	8	
	5/19/2003	15:00	47	40	9	
	6/27/2003	16:00	20	25	12	
	6/30/2003	10:00	20	22	8	
1-VEW-20A	3/6/2002	13:40	NA	1.3	NA	Well Closed
	3/29/2002	8:15	NA	0.9	NA	ш
	5/22/2002	12:23	2.87	9	11	Well Opened
	5/22/2002	13:39	14.1	31.5	11.8	п
	5/22/2002	16:12	33.1	80	4.2	и
	6/3/2002	10:00	NA	10	NA	Well Closed
	6/702 through 3/11/03 3/12/2003		SVE shut down for retr Begin start-up procedu	ıres		
	4/16/2003		0:00	45	120	
	4/29/2003	8:30	21	42	1	Well Opened***
	5/5/2003	8:00	88	45	5	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	20	42	3	
	5/19/2003	15:00	85	40	3	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	20	5	3	
1-VEW-20B	3/6/2002	13:40	NA	1.4	NA	Well Closed
	3/29/2002	8:15	NA	1.0	NA	ü
	5/17/2002	10:30	2.32	14	100	Well Opened
	5/17/2002	NA	10.7	22	170	u -
	5/17/2002	NA	32.6	72	105	п
	6/3/2002	10:00	33	61	18	u
	6/702 through 3/11/03 3/12/2003		SVE shut down for retr Begin start-up procedu			
	4/16/2003		33	40	125	
	4/29/2003	8:30	27	34	39	Well Opened***
	5/5/2003	8:00	43	17	61	on opened
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	19	20	37	
	5/19/2003	15:00	72	16	34	
	6/27/2003	16:00	NA	NA	NA	Well Closed
		10.00	A 14 A	A 14 A		+11 CIODEG

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-21A	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA	NA	NA	п
	5/16/2002	NA	3.57	39	3040	Well Opened
	5/16/2002	NA	5.4	48	3200	"
	5/16/2002	NA	37.7	96	2900	и
	6/3/2002	10:00	28	55	NA	и
	6/702 through 3/11/03		SVE shut down for retro			
	3/12/2003		Begin start-up procedure	es		
	4/16/2003		36	40	7200	
	4/29/2003	8:30	26	45	3400	Well Opened***
	5/5/2003	8:00	24	55	+10,000	<u>*</u>
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	25	40	3,050	
	5/19/2003	15:00	33	40	1,630	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	NA	NA	NA	Well Closed
1-VEW-21B	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA	NA	NA NA	
	5/20/2002	13:22	1.74	15	700	Well Opened
	5/20/2002	15:28	4.5	45	1030	" opened
	5/20/2002	17:24	36.3	79	1725	и
	5/21/2002	9:55	48.3	92	1200	и
	6/3/2002	10:00	47	90	NA	ш
	6/702 through 3/11/03 3/12/2003		SVE shut down for retro Begin start-up procedure	fit		
	4/16/2003		35	45	2670	
	4/29/2003	8:30	31	45	4650	Well Opened***
	5/5/2003	8:00	92	50	+10,000	1
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	11	40	+10,000	
	5/19/2003	15:00	36	40	+10,000	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	NA	NA	NA	Well Closed
1-VEW-22A	3/6/2002	13:40	NA	5.0	NA	Well Closed
	3/29/2002	8:15	NA	3.1	NA	"
	5/16/2002	NA	3.1	28	2200	Well Opened
	5/16/2002	NA	10.6	52	2400	п - L
	5/16/2002	NA	18.05	92	1600	и
	6/3/2002	10:00	18	74	80	и
	6/702 through 3/11/03		SVE shut down for retro	fit		
	3/12/2003		Begin start-up procedur			
	4/16/2003		15.5	40	450	
	4/29/2003	8:30	37	41	296	Well Opened***
	5/5/2003	8:00	72	58	445	*
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	11	40	330	
	5/19/2003	15:00	65	36	368	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	30	38	262	·

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-22B	3/6/2002	13:40	NA	5.1	NA	Well Closed
	3/29/2002	8:15	NA	3.1	NA	"
	5/20/2002	13:30	4.12	16	37	Well Opened
	5/20/2002	15:20	21.1	40	72	"
	5/20/2002	17:35	37	77	179	и
	5/21/2002	10:07	43.6	91	230	и
	6/3/2002	10:00	51	88	20	ш
	6/702 through 3/11/03		SVE shut down for retr			
	3/12/2003		Begin start-up procedu			
	4/16/2003		20	45	16	
	4/29/2003	8:30	24	47	24	Well Opened***
	5/5/2003	8:00	70	53	23	*
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	30	45	3	
	5/19/2003	15:00	39	43	38	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	30	30	9	
1-VEW-23A	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA	NA	NA	п
	5/16/2002	NA	3.25	20	130	Well Opened
	5/16/2002	NA	12.5	49	45	u u
	5/16/2002	NA	21.4	20	35	и
	6/3/2002	10:00	14	40	11	Well Closed
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	4/16/2003		0:00	10	18	
	4/29/2003	8:30	4	7	41	Well Opened***
	5/5/2003	8:00	60	40	22	*
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	6	10	12	Well at 85%
	5/19/2003	15:00	18	6	1,460	Well at 10%
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	NA	NA	NA	Well Closed
	3/6/2002	13:40	NA	NA	NA	Well Closed
	3/29/2002	8:15	NA	NA	NA	ıı
	5/20/2002	13:16	2.67	15	46	Well Opened
	5/20/2002	15:38	10	23	1700	n
	5/20/2002	17:08	19.5	79	9000	ü
	5/21/2002	9:48	46.3	94	8000	ü
	6/3/2002	10:00	37	90	600	и
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	4/16/2003		23	40	>10000	
	4/29/2003	8:30	33	43	>9999	Well Opened***
	5/5/2003	8:00	75	45	+10,000	-
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	11	40	+10,000	
	5/19/2003	15:00	24	40	+10,000	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	NA	NA	NA	Well Closed

Site Name: BRC Former C-6 Facility
Location: Los Angeles, California

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-24A	1/18/2002	10:40	NA	88	> 9,999 *	Well opened
	1/24/2002	11:00	NA	75	> 9,999 *	" spened
	1/31/2002	13:45	33	23	> 9,999	п
	2/7/2002	16:50	31	26	> 9,999	ш
	2/15/2002	17:51	NA	NA	> 9,999 *	п
	2/21/2002	17:44	46.5	30	> 9,999	ш
	2/27/2002	14:17	32	30	> 9,999	п
	3/6/2002	13:40	94	64	> 9,999	п
	3/13/2002	16:20	45	30	> 9,999	п
	3/20/2002	8:30	42	32	> 9,999	н
	3/29/2002	8:15	9	28	4,000	и
	5/16/2002	NA	8.85	24	450	и
	5/16/2002	NA	33.7	42	550	и
	5/16/2002	NA	77.5	90	520	и
	6/3/2002	10:00	43	56	55	и
	6/702 through 3/11/03		SVE shut down for retro	ofit		
	3/12/2003		Begin start-up procedu	res		
	4/16/2003		35	45	190	
	4/29/2003	8:30	35	45	60	Well Opened***
	5/5/2003	8:00	70.3	53	145	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	42	43	132	
	5/19/2003	15:00	43	42	81	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	30	36	4	
	12/13/2001	15:00	10	54	> 9,999 *	Well opened
	12/20/2001	14:15	5	47	> 800 *	wen opened
1-VEW-24B	1/3/2002	13:15	32	48	> 320 *	п
1- V E W-24D	1/10/2002	14:00	30	48	> 700 *	п
	1/18/2002	8:25	25	90	> 760 *	н
	1/18/2002	10:40	NA	90	> 2,500 *	и
	1/24/2002	11:00	93	90	> 9,999 *	и
	1/31/2002	13:45	9	23	> 9,999	ü
	2/7/2002	16:50	ý ,	26	> 9,999	и
	2/15/2002	17:51	NA	NA	> 9,999 *	u
	2/21/2002	17:44	11	30	> 9,999	u
	2/27/2002	14:17	8	31	> 9,999	и
	3/6/2002	13:40	13	64	> 9,999	и
	3/13/2002	16:20	10.5	30	> 9,999	п
	3/20/2002	8:30	5.8	32	> 9,999	и
	3/29/2002	8:15	38	28	> 9,999	ш
	5/20/2002	13:43	1.08	15	42	и
	5/20/2002	15:10	4.4	41	490	u
	5/20/2002	17:45	28.4	77	1010	и
	5/21/2002	10:16	41.4	91	635	п
	6/3/2002	10:00	30	70	100	Ü
	6/702 through 3/11/03		SVE shut down for retro	ofit		
	3/12/2003		Begin start-up procedu	res		
	4/16/2003		32	47	1675	
	4/29/2003	8:30	28	48	733	Well Opened***
	5/5/2003	8:00	69.9	50	4,170	-
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	21	46	1,705	
	5/19/2003	15:00	46	44	1,942	
	6/27/2003	16:00	NA	NA	NA	Well Closed
	6/30/2003	10:00	20	78	1,610	

Site Name: BRC Former C-6 Facility
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WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
1-VEW-25A	3/6/2002	13:40	NA	5.5	NA	Well Closed
1- 11:11-20:1	3/29/2002	8:15	NA	3.7	NA NA	" Closed
	5/16/2002	NA	2.68	23	125	Well Opened
	5/16/2002	NA	13.5	44	135	"
	5/16/2002	NA	28	90	120	ıı
	6/3/2002	10:00	25	46	45	и
	6/702 through 3/11/03	10.00	SVE shut down for retro		15	
	3/12/2003		Begin start-up procedur			
	3/24/2003		41	32	110	Well Opened**
	4/1/2003		12	30	49	···
	4/16/2003		0:00	30	90	
	4/29/2003	8:30	19	30	88	
	5/5/2003	8:00	32	40	52	
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	57	38	165	
	5/19/2003	15:00	24	37	178	
	6/27/2003	16:00	20	52	159	
	6/30/2003	10:00	20	25	54	
1-VEW-25B	3/6/2002	13:40	NA	5.9	NA	Well Closed
	3/29/2002	8:15	NA	3.5	NA	n
	5/18/2002	10:17	1.36	23	280	Well Opened
	5/18/2002	12:30	3.75	35.5	370	"
	5/18/2002	14:23	7.65	61	310	W .
	6/3/2002	10:00	19	45	185	и
	6/702 through 3/11/03		SVE shut down for retro			
	3/12/2003		Begin start-up procedur			
	4/1/2003		7.5	30	620	
	4/16/2003		12	25	8.1	
	4/29/2003	8:30	14	36	12	Well Opened***
	5/5/2003	8:00	42	55	1,350	well opened
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	33	42	732	
	5/19/2003	15:00	37	42	740	
	6/27/2003	16:00	17	79	810	
	6/30/2003	10:00	20	50	535	
	3/6/2002	13:40	NA	3.7	NA	Well Closed
	3/29/2002	8:15	NA	2.7	NA	"
	5/16/2002	10:50	5.45	37	95	Well Opened
	5/16/2002	NA	24.5	90	190	opened
	5/16/2002	NA	33.5	>100	95	н
	6/3/2002	10:00	55	85	105	н
	6/702 through 3/11/03	10.00	SVE shut down for retro		200	Well Opened
	3/12/2003		Begin start-up procedur			wen opened
	4/1/2003		16	50	145	
	4/16/2003		34	45	91	
	4/29/2003	8:30	20	43	68	Well Opened***
	5/5/2003	8:00	27	45	60	men opened
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	15	10M 40	168	
	5/19/2003	15:00	33	40	176	
	5/19/2003 6/27/2003	16:00	33 15	40 76	176	
		10:00	21	75	109	
	6/30/2003	10:00	∠1	13	103	

Site Name: BRC Former C-6 Facility Location: Los Angeles, California

Building 1/36 Interim Action SVE System System:

WELL ID	DATE	TIME	FLOW RATE (1) (scfm)	VACUUM (inches of H2O)	WELLHEAD FID (2) (ppmv)	COMMENTS
	3/6/2002	13:40	NA	3.8	NA	Well Closed
	3/29/2002	8:15	NA	2.8	NA	ü
	5/18/2002	NA	5.15	19.5	260	Well Opened
	5/18/2002	NA	23	35	280	n Î
	5/18/2002	NA	43.6	61	240	п
	6/3/2002	10:00	24	36	60	п
	6/702 through 3/11/03		SVE shut down for retr	ofit		
	3/12/2003		Begin start-up procedu	ires		
	4/1/2003		27.5	65	322	
	4/16/2003		19	35	220	
	4/29/2003	8:30	22	34	193	Well Opened***
	5/5/2003	8:00	59	60	50	-
	5/8/2003	15:30	NM	NM	NM	
	5/12/2003	8:00	30	36	258	Well at 50%
	5/19/2003	15:00	33	35	270	ii
	6/27/2003	16:00	30	38	380	
	6/30/2003	10:00	30	40	253	

Notes:

ppmv: parts per million by volume

QA/QC:

Date:

ppints: parts per minion by volume
scfm: standard cubic foot per minute (acfm corrected for vacuum and temperature)
NA: data was not recorded or available
* Well head readings not taken. Estimates based on diluted inlet concentrations
(1) Direct flow readings taken by hand-held TSI Veloci-cale Plus
(2) Measurements taken with a Foxboro OVA FID calibrated to 100 ppmv Hexane, results as Hexane

^{**} Well opened between 3/12/03 and 4/15/03 during re-start procedures. Data provided was collected on 3/24/03
*** Well opened between 3/25/03 and 4/15/03 during re-start procedures. Data provided was collected on 4/29/03

TABLE 4 - MEK ANALYTICAL RESULTS

Site Name: BRC Former C-6 Facility Location: Torrance, California System: Building 1/36 SVE System

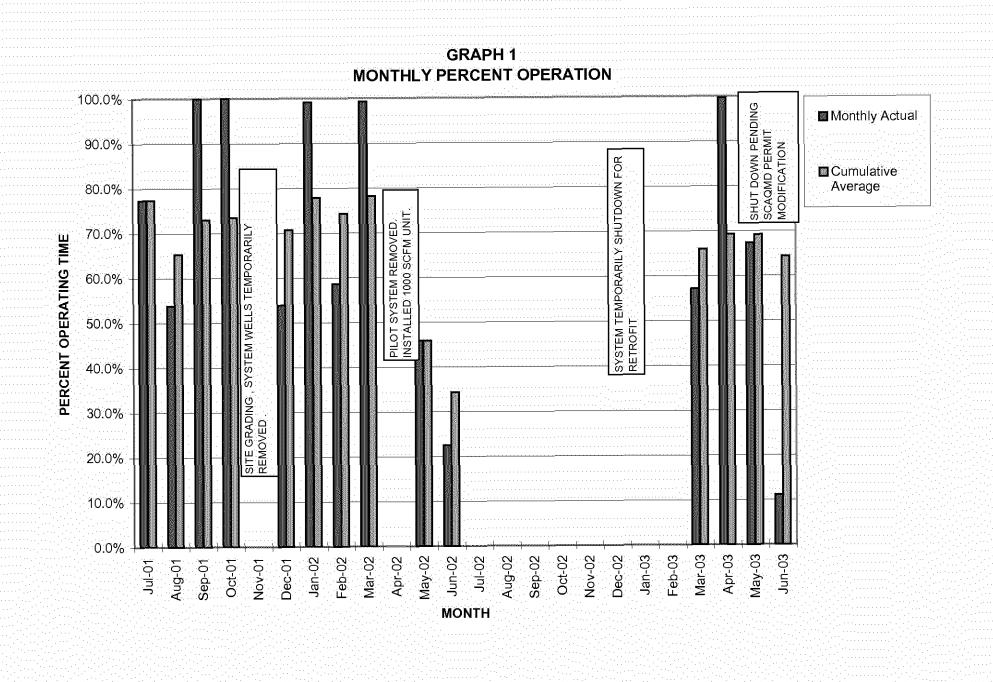
	MEK CONCENT	TRATIONS (ppmV)
		(ppiiiv)
	Static (Pre-Start)	Recent Operation
WELL ID	18 DEC 2002	March/April 2003
1-VEW-1	N/S	ND
1-VEW-2	N/S	ND ND
1-VEW-3	N/S	ND ND
1-VEW-4	N/S	ND ND
1-VEW-5	N/S	ND ND
1-VEW-6	52	ND ND
1-VEW-7	ND ND	ND
1-VEW-8A	ND ND	ND
1-VEW-8B	ND	ND
1-VEW-9	13	15
1-VEW-10A	22	0.0026 J
1-VEW-10B	0.44	4.8 J
1-VEW-11A	0.29	ND
1-VEW-11B	ND	ND
1-VEW-12	ND	ND
1-VEW-13A	N/S	ND
1-VEW-13B	N/S	ND
1-VEW-14A	N/S	ND
1-VEW-14B	N/S	ND
1-VEW-15A	N/S	ND
1-VEW-15B	N/S	ND
1-VEW-16A	N/S	ND
1-VEW-16B	N/S	ND
1-VEW-17A	N/S	ND
1-VEW-17B	N/S	ND
1-VEW-18A	0.46	0.0044 J
1-VEW-18B	0.35	ND
1-VEW-19A	25	ND
1-VEW-19B	65	ND
1-VEW-20A	0.03	ND
1-VEW-20B	ND	ND
1-VEW-21A	620	550
1-VEW-21B	160	110
1-VEW-22A	0.15	ND
1-VEW-22B	0.12	ND
1-VEW-23A	14	0.012 J
1-VEW-23B	29	320
1-VEW-24A	ND	ND 5.0.1
1-VEW-24B	ND ND	5.0 J
1-VEW-25A	ND 0.1	ND
1-VEW-25B	0.1	ND ND
1-VEW-26A	N/S	ND ND
1-VEW-26B	N/S	ND

Notes:

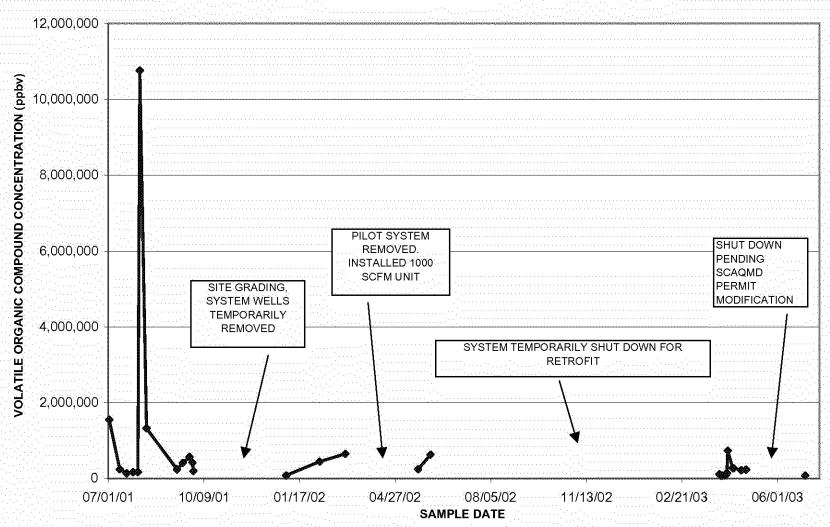
ppmV: Parts per million by volume

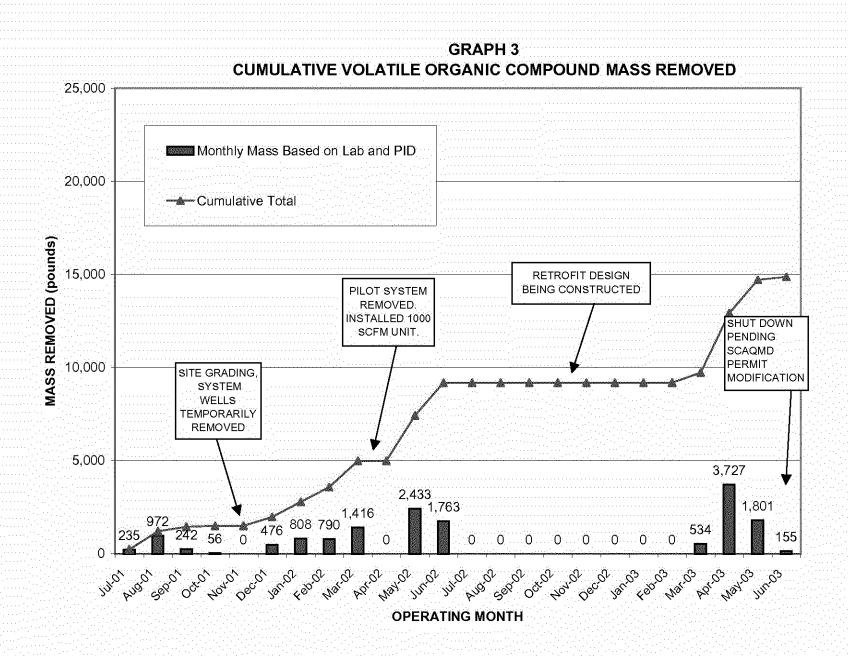
J: Estimated ND: Not Detected N/S: Not Sampled

QA/	QC:	
Date		



GRAPH 2
SVE SYSTEM TOTAL DILUTED VOC INFLUENT CONCENTRATION
(LABORATORY DATA)





MAINTENANCE LOG

BRC Former C-6 Facility Los Angeles, California Building 1/36 Interim Action SVE System Site Name: Location:

System:

DATE	MAINTENANCE ACTIVITY
7/2/2001	Pilot system started
8/17/2001	One GAC vessel was changed out (8,000 lbs), system shut down contingent to potential move to C-1
9/11/2001	System restarted
10/1/2001	System shutdown and wells abandoned for site grading
11/29/2001	New well installed and re-piped to system
12/13/2001	System restarted
12/20/2001	System shutdown, GAC breakthrough
12/28/2001	One GAC vessel was changed out (8,000 lbs), system restarted
1/31/2002	System shutdown, GAC breakthrough
2/6/2002	One GAC vessel was changed out (8,000 lbs), system restarted
2/21/2002	System shutdown, GAC breakthrough
2/27/2002	One GAC vessel was changed out (8,000 lbs), system restarted
3/8/2002	System shutdown, GAC breakthrough, one GAC vessel was changed out (8,000 lbs), system restarted
3/29/2002	Pilot system shutdown and removed, GAC breakthrough, install 1,000 scfm unit
4/17/2002	One GAC vessel (8,000 lbs) changed out in preparation for 1000 scfm unit
5/15/2002	1000 scfm unit installed and started, South vessel as primary carbon
5/18/2002	System shutdown, west vessel switched into primary position, system restarted
5/21/2002	South GAC vessel was changed out (8,000 lbs), system restarted, south vessel as primary carbon
5/27/2002	System shut down, GAC breakthrough
5/29/2002	South and West GAC vessel were changed out (16,000 lbs), system restarted, west vessel as primary carbon
6/3/2002	North vessel as primary and south vessel as secondary carbon, system modifications installed
6/7/2002 6/12/2002	System shutdown due to apparent vandalism GAC overheating discovered. Quenched with water
6/13/2002	Additional GAC quenching, GAC removed from all three vessels
8/1/2002 - 9/30/2002	Bidding and procurement for retrofit
10/30/2002	Notice to proceed for retrofit contractor
11/13/2002	Complete water line installation
12/3/2002	Deliver GAC vessels with retrofits
12/10/2002	Equipment and electrical installation
	Holiday shutdown period
1/3/2003	System modification and pre-startup testing
3/12/2003	Begin start-up procedures: System operating during working hours while extraction wells are brought on-line
3/14/2003	Continuing start-up procedures: SVE is left to run continuously. More wells are brought on line.
3/24/2003	One GAC vessel was changed out (8,000 lbs), system restarted
3/31/2003	System shut down while waiting for carbon regeneration, GAC breakthrough during start-up procedures.
4/1/2003	Carbon in vessels V-2 and V-3 was replaced (approx 16,000 lbs) and the system restarted.
	Vessel V-4 made the primary and vessel V-3 the secondary.
4/3/2003	Start opening category 1 wells (wells with expected MEK concentrations)
4/7/2003	Removed 30 gallons of water that accumulated in wellfield piping.
	Water placed in on-site water storage tank.
4/11/2003	Breakthrough from primary vessel (V-4). Vessel V-3 made the primary and Vessel 2 the secondary
4/15/2003	Finished opening wells for re-start up prodedures: all wells open. Carbon in vessel V-4 replaced (8,000 lbs).
	Breakthrough from primary vessel V-3. Vessel V-2 made the primary and vessel V-4 the secondary.
4/16/2003	Carbon in vessel V-3 replaced (8,000 lbs.).
4/21/2003	Breakthrough from vessel V-2. Vessel V-4 made the primary and vessel V-3 the secondary.
	Carbon stored on-site while carbon is re-profiled as all wells are now on-line
4/25/2003	Carbon in vessel V-2 replaced (approx 6,500 lbs.).
4/29/2003	Breakthrough from vessel V-4. Vessel V-3 made the primary and vessel V-2 the secondary.
5/5/2003	Operation and Maintenance of SVE system turned over to Wayne Perry. Breakthrough of primary vessel (V3).
5/6/2003	Change carbon in primary (V3) and secondary (V2) vessels (approx 14,000) lbs.).
5/8/2003	Meeting with Value Engineering to obtain access to PLC program. Check system.
5/12/2003	O&M of system by WPI, breakthrough on primary vessel (V2). Changed primary vessel to V4 and secondary to V3.
5/14/2003	Change carbon in vessel (V2) (approx 7,000 lbs.).
5/19/2003	O&M by WPI, breakthrough of primary vessel (V4), changed primary to V3 and secondary to V2.
5/21/2003	Change carbon in vessel (V4) (approx 10,000 lbs.).
5/22/2003	System shut down due to AQMD permit compliance issues. System remains shut down.
6/07/0000	Reviewed start-up check list. Raised exhaust stack 1.5 feet. Blower motor was repaired. Drained water from
6/27/2003	carbon vessels prior to start-up.